

# **Town of Camp Verde**

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## **Yellow StarThistle**

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**Have you seen  
This bad actor -  
Yellow Star Thistle**



**This spiny noxious weed has been spotted in parts of Camp Verde and  
The Town would like to know where it is so we can help:**

- ✓ Identify the plant**
- ✓ Educate the landowner on the harmfulness of the plant**
- ✓ Help with a plan to contain/eradicate it**

**Sources: Photo copyright Brother Alfred Brousseau), <http://www.crcd.org/yellowstarthistle.html>**

Dear Yavapai County and Camp Verde Property Owner:

Yellow Starthistle is a noxious weed that reduces the value of real estate, degrades recreational areas, and replaces desirable plants used by livestock and wildlife, rendering land useless for forage and habitat.

**This weed is also highly toxic to horses, causing a fatal nervous system disease when large quantities are ingested.**

By identifying it early on, we can hopefully contain and/or eradicate it using one or a combination of the following methods:

### **METHODS COMMONLY USED TO CONTROL YELLOW STARThISTLE**

**HAND PULLING:** For small infestations – up to a thousand plants and less than ½ an acre for example – hand pulling is desirable and very effective. Yellow starthistle must be pulled before flowering if plants are to be left on site to decompose and recycle into the soil. If flowers are visible, plants need to be bagged in heavy duty plastic garbage bags (4 ml thickness), tightly sealed, and placed in the garbage. Hand pulling while infestations are still small is preferable because if treated promptly, yellow starthistle can be effectively eradicated without herbicides.

**WEED WHACKING OR MOWING:** Must be done when 2-5% of the spiny heads are showing yellow flowers. This minimizes the chance of seeds forming while also minimizing resprouting. Should be followed up with hand-pulling or another treatment 3-4 weeks later.

**HERBICIDE:** If your infestation is too large to apply the above methods practically, herbicides may be necessary in addition to hand and mechanical methods. One herbicide used with success in California is Transline. Transline has both post emergent and pre emergent activity so one application per year is usually sufficient. This material is in the most benign category of pesticides, requires no permit, and has no grazing restrictions. It is selective, affecting a few plant families, but sparing many others, including grasses and California poppies.

Based on research at UC Davis, two to three consecutive years of spraying with Transline combined with persistent manual removal of any plants that might escape spraying will eliminate any source of new seed. After that, manual removal of the few plants that emerge from seeds in the soil should be adequate for complete control.

### **Biological Control**

Four natural enemies of yellow starthistle have been imported from Europe and by 2003 were well established in California. These biological control agents include two weevils (*Bangasternus orientalis* and *Eustenopus villosus*) and two flies (*Urophora sirunaseva* and *Chaetorellia succinea*). They all attack the flower/seed head and directly or indirectly reduce seed production, the only means of reproduction and spread of the weed. The insects lay their eggs in, on, or near flower/seed heads and complete their development within them. *Eustenopus villosus* adults also directly reduce seed production by feeding on immature flower heads. All of these insects are highly host-specific to yellow starthistle and do not attack commercially valuable crops or native plants.

The Verde Natural Resource Conservation District is one resource that can be contacted for help with this problem. [www.verde.org](http://www.verde.org)